

ABSTRACT

The subject invention is directed to use of photoconductors as conductors of light to photo diodes in a CMOS chip, wherein said photoconductors are separated by at least one low refractive index material (i.e. air). The present invention offers advantages over previous CMOS imaging technology, including enhanced light transmission to photo diodes. The instant methods for producing a CMOS imaging device and CMOS imager system involve minimal power loss. Since no lens is required, the invention eliminates concerns about radius limitation and about damaging lenses during die attach, backgrind, and mount. The invention also provides little or no cross talk between photo diodes.